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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,184	06/26/2003	David L. Patton	83891AF-P	6177

7590 05/14/2007  
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EXAMINER
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LE, BRIAN Q

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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05/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/607,184	<b>Applicant(s)</b> PATTON ET AL.	
	<b>Examiner</b> Brian Q. Le	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **Response to Amendment and Arguments**

1. Applicant's amendment filed April 19, 2007, has been entered and made of record.
2. The rejection of claims 1-8 under 35 U.S.C. 112, first paragraph is withdrawn.
3. Applicant's arguments with regard to claims 1-8 have been fully considered, but are not considered persuasive because of the following reasons:

For claim 1, the Applicant argues (page 4 of the Remarks) that there is no teaching of the reading occurs by the laser from the combined references Kaplan U.S. Patent No. 6,211,484 ("Kaplan") and further in view of Froehlich et al. "A Near-field Scanning Optical Microscope for Analysis of Magneto-Optic Media", I.E.E.E. Optical Memory and Optical Data Storage, 1993, pages: 83-84. ("Froehlich"). The Examiner respectfully disagrees. Nowhere in the claim the Applicant has claimed the reading occurs by the laser.

Also the Applicant argues (page 4 of the Remarks) that Kaplan does not suggest the reading using near-field optics. As disclosed in previous Office Action, the Examiner uses Froehlich to teach this concept.

The Examiner further argues (page 4 of the Remarks) that Froehlich reference does not teach reading microscopy indicia used in near-field optics. The Examiner respectfully disagrees. As discussed in Final Office Action filed 08/28/2006, the ability to read micro-discrete indicia by near-field optics is well known in the art. Also near-field optics in this case is a structure/apparatus, which uses to read micro-discrete indicia is an inherent function of the apparatus (see MPEP 2112.01). In addition, Froehlich teaches the reading of microscopy (scanning optical microscopy) used in near-field optics (page 83, first paragraph and page 84).

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Thus, the combination of Kaplan U.S. Patent No. 6,211,484 and further in view of Froehlich et al. "A Near-field Scanning Optical Microscope for Analysis of Magneto-Optic Media", I.E.E.E. Optical Memory and Optical Data Storage, 1993, pages: 83-84. teaches the claiming limitation.

The Examiner believes that all the arguments of the Applicant have been properly addressed and explained. Thus, the rejections of all of the claims are maintained.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kaplan U.S. Patent No. 6,211,484 and further in view of Froehlich et al. "A Near-field Scanning Optical Microscope for Analysis of Magneto-Optic Media", I.E.E.E. Optical Memory and Optical Data Storage, 1993, pages: 83-84.

Regarding claim 1, Kaplan teaches a method for reading a micro-discrete indicia (comparison between reading indicia and retrieved metric at micron scale) (column 8, lines 50-55 and column 16, lines 45-50) on gemstone (column 1, lines 13-15) comprising the locating a an apparatus-created (the system generates inscription/fully automated inscription) (column 3, lines 16-20 and column 16, lines 44-50) unique micro-discrete indicia on said gemstone (measuring gemstone's characteristics and locating indicia by coordinate) (column 8, lines 50-65 and column 4, lines 45-50). Further, Kaplan also uses a microscope in the reading (column 3,

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lines 13-16 and column 16, lines 51-55) of apparatus-created (the system generates inscription/fully automated inscription) (column 3, lines 16-20 and column 16, lines 44-50) unique the indicia on the gemstone (column 12, lines 20-26). However, Kaplan does not explicitly teach the reading of micro-discrete indicia using near-field optics. Froehlich teaches the utilization of near-field optic of the microscopy (provides the capability of reading micro-discrete indicia) (page 83, first paragraph). Modifying Kaplan's method of providing micro-discrete indicia on gemstone would able to provide the reading ability (scanning/measurements) of micro-discrete indicia using near-field optics to exceed the far-field diffraction limit compared to the use of an objective lens in convention optical microscopy (page 83, first paragraph). Using this suggestion, one of ordinary skill in the art, would have been motivated to replace the microscope of Kaplan with the device of Froehlich. This would improve processing and therefore, it would have been obvious to one of the ordinary skills in the art to modify Kaplan according to Froehlich.

Regarding claim 2, Kaplan teaches a method wherein said micro-discrete indicia is located (as discussed) initially located using an eye-loop (jeweler's loupe) (column 8, lines 30-35) or microscope (FIG. 6, element 68).

For claim 3, Kaplan further teaches a method wherein said micro-discrete indicia is located by using predetermined coordinates (initially positioned) associated with the characteristics of said gemstone (column 4, lines 48-60) (column 1, lines 13-16).

Referring to claim 4, Kaplan also teaches a method where a document (column 8, lines 14-18 and column 4, lines 13-21) is provided that designates the appropriate coordinates of the micro-discrete indicia of said gemstone (column 4, lines 48-60).

Regarding claim 5, Kaplan teaches a method wherein said characteristics of said gemstone used to locate said indicia is selected from of the following size (column 13, lines 31-37).

For claim 6, Kaplan discloses a method wherein said micro-discrete indicia is used for authenticating an occasion of said gemstone (column 13, lines 34-47).

Referring to claim 7, Kaplan teaches a method wherein said authentication identifies the quality and type of gemstone (face value) (column 6, lines 60-64).

For claim 8, Kaplan further teaches the scanning said gemstone (microscope scans gemstone) (FIG. 6, element 68).

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

**Contact Information**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q. Le whose telephone number is 571-272-7424. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Brian Le', with a stylized, flowing script.

Brian Le  
May 9, 2007